

# Frequency and severity of premenstrual syndrome and the coping strategies adopted by the adolescent girls

Athira.Sudhakaran A.V<sup>1</sup>, Isha.S, M.Sc. (N), MBA (HM)<sup>2</sup>

<sup>1</sup>Msc Nursing student. <sup>2</sup>Professor

MIMS College of Nursing, Puthukode, Malappuram, Kerala.

**Abstract:** Among the gynecological problems, menstrual problems are said to be a major one especially among adolescent females. Premenstrual syndrome (PMS) is the common menstrual problem experienced by adolescent girls. The present study aimed to identify the frequency and severity of premenstrual syndrome and the coping strategies adopted by adolescent girls. The objectives of the study were to identify the frequency of premenstrual syndrome among adolescent girls, to identify the severity of premenstrual syndrome among adolescent girls, to identify the coping strategies adopted by adolescent girls, to determine the relationship between severity of premenstrual syndrome and coping strategies adopted by adolescent girls. to find out the association between severity of premenstrual syndrome and selected demographic and personal variables ,to find out the association between coping strategies and selected demographic and personal variables and to develop an information booklet on premenstrual syndrome and its management. A non experimental descriptive survey was conducted among 200 adolescent girls selected using non-probability purposive sampling technique. The tools used were Socio- demographic proforma to assess the demographic and personal data, rating scales to identify the frequency of Pre-menstrual syndrome and coping strategies adopted by adolescent girls. The result showed that the most frequently occurring symptoms are lower abdominal pain , fatigue , increased anger, headache , pimples or other skin problems , decreased interest in activities , muscle ache , increasing or decreasing appetite , likes to eat any specific food, backache , depression/ sadness and difficulty to getting sleep, increased body temperature , mood swings and irritability, 56.5% of the sample have mild , 27% of them have moderate , 15% of them have severe and 1.5% of sample have very severe PMS. The result also revealed that 34.50% of the sample have poor coping strategies, 64.50% of the sample have moderate coping strategies and only 1.00% of the sample have good coping strategies. There is a significant relationship between severity of Premenstrual syndrome and coping strategies adopted by adolescent girls.

**Index Terms:** Premenstrual Syndrome (PMS), Frequency of PMS , Severity of PMS , Coping strategies, Adolescent girls.

## INTRODUCTION

Premenstrual syndrome (PMS) is the name given to a collection of physical, psychological and behavioural symptoms that some women experience during the luteal phase of each menstrual cycle. Symptoms seem to worsen as menstruation approaches and subside at the onset or after several days of menstruation.<sup>1</sup> Epidemiological studies have estimated that as many as 80% women of reproductive age experience some symptoms attributed to premenstrual phase of menstrual cycle<sup>2</sup>. Studies from different countries indicated that devoid of age and educational status, almost all women during their reproductive period suffer with PMS. But the severity and intensity vary from individual to individual. 3-5% of PMS sufferers are severely affected with premenstrual dysphoric disorder (PMDD).<sup>3,4</sup>

PMS is prevalent in women of all ages causing substantial morbidity with obvious detriment to interpersonal relationships, social interactions, lifestyle, work performance, emotional well-being and overall health related quality of life. PMS is particularly common in the younger age groups. The medical and social consequences of PMS and disorders of menstruation influence not only the individual but also her family and society.<sup>2</sup> PMS, even though mild to moderate in intensity, might adversely affect and influence daily activities and may lead problems in academic excellence, achievements in sports and other extracurricular fields as well as loss of self-image.<sup>5</sup> Worldwide studies showed that PMS is one of the major causes of recurrent absenteeism and decreased academic performance among adolescent girls

## STATEMENT OF THE PROBLEM

A study to identify the frequency and severity of premenstrual syndrome and the coping strategies adopted by adolescent girls in selected schools, Kozhikode

## OBJECTIVES

- Identify the frequency of premenstrual syndrome among adolescent girls.
- Identify the severity of premenstrual syndrome among adolescent girls.
- Identify the coping strategies adopted by adolescent girls during premenstrual syndrome
- Determine the relationship between severity of premenstrual syndrome and coping strategies adopted by adolescent girls.
- Find out the association between severity of premenstrual syndrome and selected demographic and personal variables.
- Find out the association between coping strategies and selected demographic and personal variables.
- Develop an information booklet on premenstrual syndrome and its management.

## ASSUMPTIONS

- PMS is a common menstrual related problem among adolescent girls.
- PMS may affect the quality of life and daily activities of adolescent girls.
- Adolescent girls adopt various coping strategies to relieve PMS.

## HYPOTHESIS

H1: There will be significant relationship between severity of premenstrual syndrome and coping strategies adopted by adolescent girls.

H2: There will be significant association between severity of premenstrual syndrome and selected demographic and personal variables.

H3: There will be significant association between coping strategies adopted by adolescent girls and selected demographic and personal variables.

## MATERIALS AND METHODS

Non experimental descriptive survey was conducted among 200 adolescent girls studying in Government Achuthan girls' higher secondary school and Government Model Ganapath higher secondary school, Kozhikode. As per the inclusion criteria, 100 sample each were selected by purposive sampling. Tools used for the study were, tool 1- structured questionnaire which consists of two sections, section A to collect socio demographic data and section B to collect personal data. Tool -2 consist of a rating scale with 25 items to assess frequency and severity of PMS. It is a 5-point scale (symptom does not exist, mild symptoms, moderate symptoms, severe symptoms that interferes daily activities, severe symptoms which are unable to cope) and given scores of 0,1,2,3,4 respectively for the symptoms. The maximum total score is 100 and minimum score is 0. The interpretation of score is, 0-25 : Mild PMS, 26-50 : Moderate PMS, 51-75 : Severe PMS and 76-100 : Very severe PMS. Tool- 3 is a 4-point rating scale to assess coping strategies, with the score from 0-3 (Never-0, Sometimes -1, Often-2, Always-3). It consists of 23 items and the maximum score is 69 and minimum score is 0. The interpretation of score is 0-22 : Poor coping strategies, 23-46 : Moderate coping strategies and 47-69 : Good coping strategies. The reliability of the tools were tested using Cronbach's alpha and was found to be 0.9 for tool -2 and 0.7 for tool-3. The Content Validity Index (CVI) for tool 2 was found to be 0.98 and tool 3 was 0.93. Ethical clearance was obtained from institutional ethics committee and approval from Kerala University of Health Sciences, Thrissur. Written permission was obtained from Principals of selected schools prior to the data collection. Informed consent was taken from the subjects and assured the confidentiality of the information. A pilot study was conducted among 30 adolescent girls, who met the inclusion and exclusion criteria used the proposed tools in order to assess the feasibility of the study. The main study was conducted among 200 adolescent girls using the pretested tools. The technique used was self report. The data were subjected to statistical analysis.

## RESULTS

**Distribution of sample based on (socio –demographic variables) age, class of study, , religion, place of residence, type of family and monthly income**

Out of 200 subjects , 31% belongs to age of 15 years.,32% of sample studying in 10<sup>th</sup> Std.,54.5% are Muslims, 40% of the sample are residing in Urban area, majority (75%) of the sample belong to nuclear family and 51.5% of the sample have monthly income below Rs 5000/-

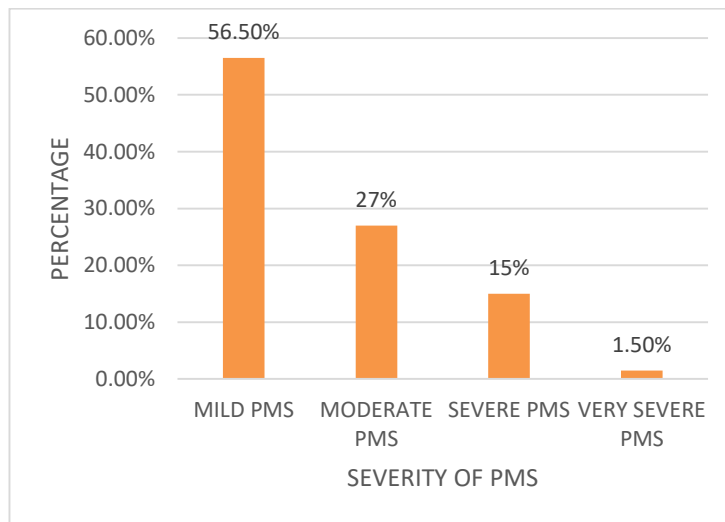
### **Distribution of sample based on (personal variables) age at menarche, frequency of menstruation, duration, amount of bleeding, use of medications, use of relaxation technique, family history and type of food**

41.5% of the sample attained menarche at the age 13 years, 88% of the sample getting menstruation once in every month, majority (70%) of the sample have the duration of 21-35 days,75.5% of the sample have moderate amount of bleeding, 91% of the sample do not take any medications for PMS , most (52%) of the sample do not have family history of PMS and majority (79%) of the sample taking mixed diet.

**Table 1: Frequency of Premenstrual Syndrome among adolescent girls**

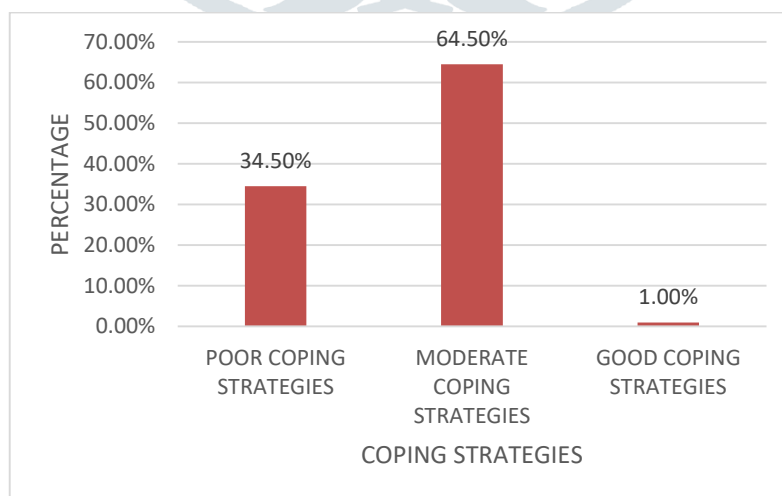
SYMPTOMS	FREQUENCY	PERCENTAGE
Breast tenderness or swelling	29	14.5%
Weight gain or swelling all over the body	21	10.5%
Lower abdominal pain	189	94.5%
Fatigue	181	90.5%
Dizziness	82	41%
Nausea and vomiting	51	25.5%
Pimples or other skin problems	147	73.5%
Muscle aches	125	62.5%
Increasing or decreasing appetite	122	61%
Difficulty to pass stool	49	24.5%
Passing loose stools	21	10.5%
Headache	152	76%
Backache	102	51%
Increased body temperature	94	47%
Increased anger	153	76.5%
Depression/ Sadness	15	50%
Irritability	12	40%
Anxiety/Tension	10	33.3%
Mood swings (Laughing, Crying)	14	46.6%
Poor concentration	9	30%
Inability to remember	10	33.3%
Decreased interest in activities	22	73.3%
Difficulty to getting sleep	15	50%
Want to be alone (Avoiding others)	9	30%
Likes to eat any specific food	17	56.6%

- Table 1 depicts that the most frequently occurring symptoms are lower abdominal pain (94.5%), fatigue (90.5%), increased anger (76.5%), headache (76%), pimples or other skin problems (73.5%), decreased interest in activities (73.3%), muscle ache (62.5%), increasing or decreasing appetite (61%), likes to eat any specific food (56.6%), backache (51%), depression/ sadness and difficulty to getting sleep (50%), increased body temperature (47%), mood swings (46.6%) and irritability (40%)



**Figure 1: Frequency and percentage distribution of Severity of Pre-menstrual syndrome**

Figure 1 depicts that 56.5% of the sample have mild PMS, 27% of the sample have moderate PMS, 15% of the sample have severe PMS and only 1.5% of samples have very severe PMS.



**Figure 2: Frequency and percentage distribution of coping strategies adopted by adolescent girls**

Figure 2 shows that 34.50% of the sample have poor coping strategies, 64.50% of the sample have moderate coping strategies and only 1.00% of the sample have good coping strategies.

**Table 2: Relationship between severity of Premenstrual syndrome and coping strategies adopted by adolescent girls**

(n = 200)

variables	Mean score	r Value	P value
Severity of PMS	25.82	0.144	0.042*
Coping strategies	27.83		

(\* significance at 0.05 level)

Table 2 shows that there is a significant relationship between severity of Premenstrual syndrome and coping strategies adopted by adolescent girls. Hence the null hypothesis ( $H_{01}$ ) is rejected and research hypothesis ( $H_1$ ) is accepted.

**Table 3: Association between severity of Premenstrual syndrome and selected demographic variable**

(n = 200)

Demographic variable	$X^2$	df	P value
Age	10.779	15	0.768
Class of studying	15.689	12	0.206
Religion	5.042	3	0.169
Place of residence	5.217	6	0.516
Type of family	13.530	6	0.035*
Monthly income	20.637	12	0056

(\* Significance at 0.05 level)

Table 3 shows that there is a significant association between Severity of PMS and demographic variable such as type of family..

**Table 4: Association between severity of Premenstrual syndrome and selected personal variables**

(n = 200)

Personal variable	X <sup>2</sup>	df	P value	
Age at menarche	15.455	18	0.630	
Frequency of menstruation	8.123	6	0.229	
Duration of menstruation	10.815	6	0.094	
Amount of bleeding	18.250	6	0.006*	
Use of medications	25.656	3	0.000*	
Family history of PMS	2.179	3	0.536	
Use of relaxation techniques	16.166	3	0.001*	
Type of food	11.427	11.4276	60.076	0.076

(\* Significance at 0.05 level)

Table 4 shows that there is a significant association between severity of Premenstrual syndrome and selected personal variables such as amount of bleeding, use of medications and use of relaxation technique..

**Table 5: Association between coping strategies and selected demographic variables**

(n =200)

Demographic variable	X <sup>2</sup>	df	P value
Age	17.383	10	0.066
Class of studying	14.894	8	0.061
Religion	1.031	2	0.597
Residence	8.901	4	0.064
Type of family	11.946	4	0.018*
Monthly income	11.061	8	0.198

(\* Significance at 0.05 level)

Table 5 shows that there is a significant association between coping strategies and selected demographic variable such as type of family.

**Table 6: Association between coping strategies and selected personal variable**

(n = 200)

Personal variable	X <sup>2</sup>	df	P value
Age of menarche	13.182	12	0.356
Frequency of menstruation	0.674	4	0.954
Duration	1.277	4	0.865



Amount of bleeding	9.027	4	0.060
Use of medications for PMS	4.378	2	0.112
Family history of PMS	0.863	2	0.650
Use of relaxation techniques for PMS	5.012	2	0.082
Type of food	15.349	4	0.004*

(\* Significance at 0.05 level)

Table 6 shows that there is a significant association between coping strategies and selected personal variables such as type of food.

## DISCUSSION

The present study revealed that the most frequently occurring symptoms are lower abdominal pain (94.5%), fatigue (90.5%), increased anger (76.5%), headache (76%), decreased interest in activities (73.3%). This finding is consistent with the results of another study conducted to determine the frequency and associated factors of premenstrual syndrome among 200 medical college girls in Karachi, which showed the most frequent symptoms are increased appetite 67.5%, worry and anxiety 60%, tired and lethargic 54%, felt suddenly sad/tearful 56.5%, interpersonal conflict 54% and depressed mood 52.5% and the main physical symptoms are backache 55%, acne 50.5%, joint or muscle pains 49.5%, abdominal bloating 44.5% and weight gain 40.5%.<sup>6</sup>

The present study revealed that 56.5% of the sample have mild PMS, 27% of the sample have moderate PMS, 15% of the sample have severe PMS and merely 1.5% of sample had very severe PMS. The result is congruent with the result of a study to investigate the premenstrual disorders based on Premenstrual Assessment Scale (PAS) and also to determine the association of some demographic and menstrual characteristics with these disorders among 1139 female students from Sabzevar high schools, Iran. The result showed that about 99.5% of students reported at least one premenstrual symptom of these, 66.3% were mild, 31.4% were moderate and 2.3% were severe PMS.<sup>7</sup>

## CONCLUSION

The present study concluded that most of the adolescent girls are suffering with PMS of varying degree and the most frequently occurring symptoms are lower abdominal pain, fatigue, increased anger, headache, pimples or other skin problems, decreased interest in activities, muscle ache, increasing or decreasing appetite, likes to eat any specific food, backache, depression/sadness and difficulty to getting sleep, increased body temperature, mood swings and irritability. Most of the girls are adopting moderate level of coping strategies to manage PMS. There is a significant relationship between severity of PMS and coping

strategies adopted by adolescent girls. There is significant association between severity of PMS and demographic variable such as type of family and personal variable such as amount of bleeding, use of medications and use of relaxation technique. There is significant association between coping strategies and demographic variable such as type of family. There is significant association between coping strategies and personal variables such as type of food.

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